Name:_____

New York State Testing Program

2022 Mathematics Test Session 1

Grade 4

April 26–28, 2022

RELEASED QUESTIONS

Session 1
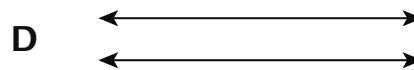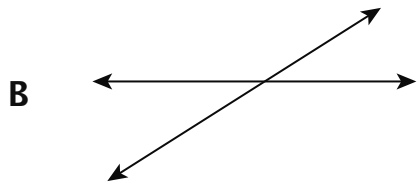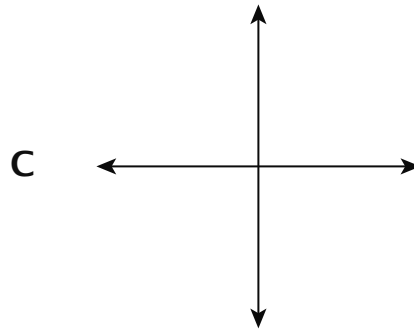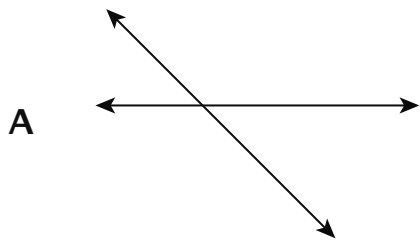
TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before making your choice.

- You have been provided with mathematics tools (a ruler and a protractor) to use during the test. It is up to you to decide when each tool will be helpful. You should use mathematics tools whenever you think they will help you to answer the question.

1 Julia moves the arm of a spinner one degree at a time 45 times. How many total degrees does Julia move the arm of the spinner?

A 1

B 45

C 90

D 360

2 Which pair of lines appears to be perpendicular?

A

C

B

D

GO ON

Session 1

8 The ground in a rectangular section of a park has a length of 24 feet and a width of 12 feet. What is the area, in square feet, of the ground in that section of the park?

A 36

B 72

C 144

D 288

9 How many times greater is the value represented by the digit 6 in the number 6,419 than the value represented by the digit 6 in the number 84,362 ?

A 10

B 100

C 1,000

D 10,000

13 Which equation represents the statement below?

forty-eight is six times as many as eight

A $48 - 6 = 8$
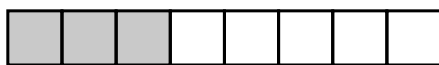
B $48 + 6 = 8$

C $48 = 6 \times 8$

D $48 = 6 + 8$

14 The models below are each shaded to represent a different fraction.

What is the sum of the fractions represented by the shaded parts of the models?
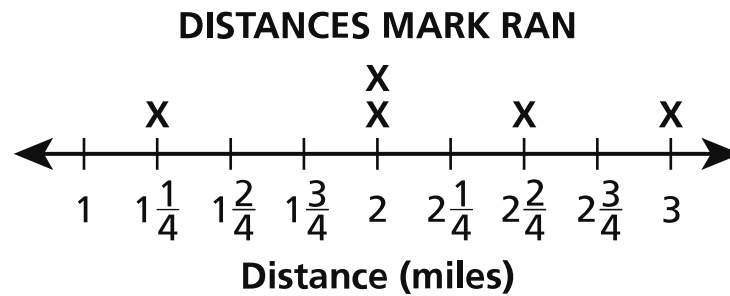
A $\dfrac{1}{8}$

B $\dfrac{3}{8}$

C $\dfrac{4}{8}$

D $\dfrac{7}{8}$

16   The line plot below shows the distances Mark ran on each of five days last week.

DISTANCES MARK RAN

Distance (miles)

What is the total number of miles Mark ran last week?

A $8\dfrac{1}{4}$

B $8\dfrac{3}{4}$

C $10\dfrac{2}{4}$

D $10\dfrac{3}{4}$

17   A number rounded to the nearest hundred is 3,700. Which number could **not** be the number before it was rounded?

A   3,614

B   3,650

C   3,720

D   3,749

GO ON

21 Which list shows only fractions less than $\frac{1}{2}$?
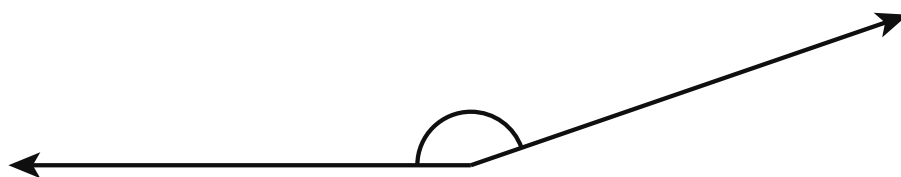
A $\quad \dfrac{1}{3}, \dfrac{1}{5}, \dfrac{1}{8}$

B $\quad \dfrac{2}{3}, \dfrac{2}{4}, \dfrac{2}{5}$

C $\quad \dfrac{1}{4}, \dfrac{5}{8}, \dfrac{6}{12}$

D $\quad \dfrac{3}{4}, \dfrac{5}{6}, \dfrac{7}{10}$

22 What is the measure of the angle shown below?

A   19°

B   24°

C   156°

D   161°

23 Brownies are sold at a bake sale.

- 3 pans of brownies are for sale

- each pan has 5 rows with 5 brownies in each row

- each brownie is sold for $2

How much money is made when all of the brownies are sold?

A $25

B $50

C $75

D $150

24 What is the measure, in degrees, of an angle that represents $\frac{1}{4}$ of a complete circle?
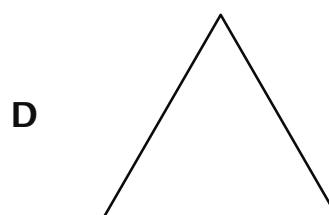
A 25

B 45

C 90

D 180

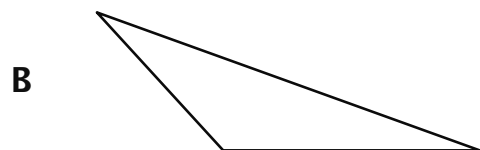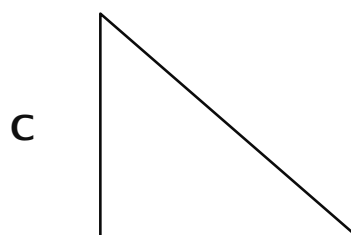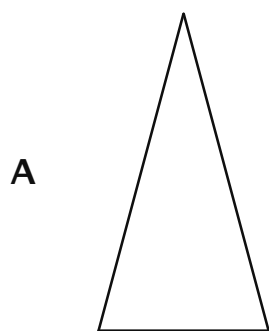**27** What is the value of $7,839 \times 9$?

    A $70,471$

    B $70,551$

    C $71,471$

    D $71,551$

28 Which figure appears to be a right triangle?

A

C

B

D

Name:_____

New York State Testing Program

2022
Mathematics Test
Session 2

Grade 4

April 26–28, 2022

RELEASED QUESTIONS

Session 2

TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before making your choice or writing your response.

- You have been provided with mathematics tools (a ruler and a protractor) to use during the test. It is up to you to decide when each tool will be helpful. You should use mathematics tools whenever you think they will help you to answer the question.

- Be sure to show your work when asked.

31 Mr. Jonus ordered a pizza to take home. His children ate $\frac{4}{8}$ of the pizza and Mr. Jonus ate $\frac{2}{8}$ of the pizza. The remaining pizza was saved for later. Which equation could be used to represent the whole pizza?

A $\quad \frac{2}{8} + \frac{3}{8} + \frac{4}{8} = 1$

B $\quad \frac{1}{8} + \frac{2}{8} + \frac{4}{8} = 1$

C $\quad \frac{2}{8} + \frac{2}{8} + \frac{4}{8} = 1$

D $\quad \frac{2}{8} + \frac{4}{8} + \frac{4}{8} = 1$

32 Matt has 4 pens. Sue has 4 times as many pens as Matt. Chris has 2 times as many pens as Sue. Which equation can be used to determine the number of pens Chris has?

A $\quad 4 + 4 + 2 = \underline{\ ?\ }$
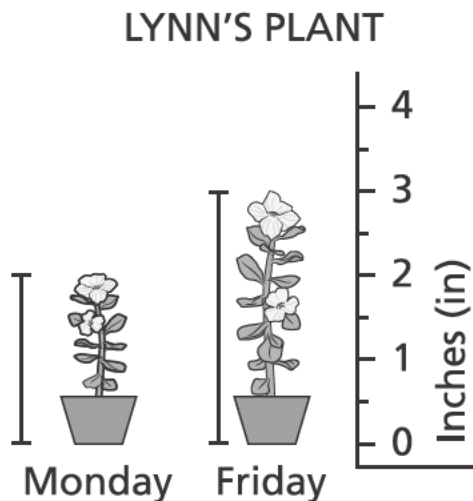
B $\quad 4 + 4 \times 2 = \underline{\ ?\ }$

C $\quad 4 \times 4 \times 2 = \underline{\ ?\ }$

D $\quad 4 \times 4 + 2 = \underline{\ ?\ }$

33 Lynn measured the height of a plant on Monday and again on Friday. The diagram below shows the plant's height, in inches, on each day.

LYNN'S PLANT

How much did the plant grow, in inches, between Monday and Friday?

A 1

B 2

C 3

D 5

34 Sam has 12 baseball cards. Aly has 4 times as many baseball cards as Sam. Which equation can be used to find the total number of baseball cards Aly has?

A $12 \div 4 = 3$

B $12 - 4 = 8$

C $12 + 4 = 16$

D $12 \times 4 = 48$

35 What is the value of the expression shown below?

$$9\frac{4}{10} - 2\frac{8}{10}$$

A $6\frac{4}{10}$

B $6\frac{6}{10}$

C $7\frac{4}{10}$

D $7\frac{6}{10}$

36 Cam has 35 tickets to use at an amusement park. He wants to use as many of the tickets on rides as he can. Each ride requires 4 tickets. How many tickets will Cam have left over after going on as many rides as he can?

A 3

B 4

C 8

D 9

GO ON

37 The students in Ms. Lee's class collected 268 books to donate to a library. The books were packed into 4 large boxes. The same number of books were packed in each box. How many books were packed in each box?

A   52

B   67

C   842

D   1,072

38 There are 24 students in Ms. Smyth's fourth-grade class. There are 6 times as many fourth-grade students in the school as in Ms. Smyth's class. Which equation can be used to find the total number of fourth-grade students in the school?

A $24 \times \underline{\ ?\ } = 6$

B $24 \div \underline{\ ?\ } = 6$

C $24 \times 6 = \underline{\ ?\ }$

D $24 + 6 = \underline{\ ?\ }$

39 The relationship between tickets earned and points earned in a game is described below.

- 1 ticket earned for every 9 points earned

- 2 tickets earned for every 18 points earned

- 3 tickets earned for every 27 points earned

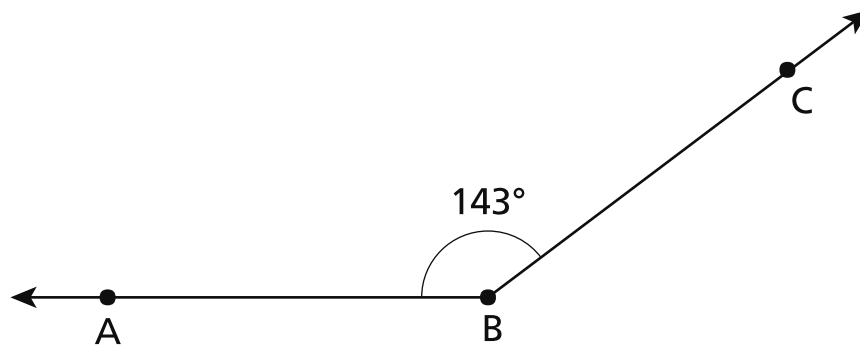If the pattern continues, how many tickets are earned when 54 points are earned?

Show your work.

Answer _____ tickets

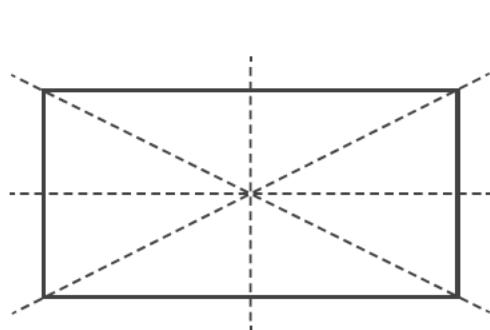*GO ON*

40 The diagram below shows angle ABC.

Ray BD is added to the diagram to create straight angle ABD and new angle CBD.
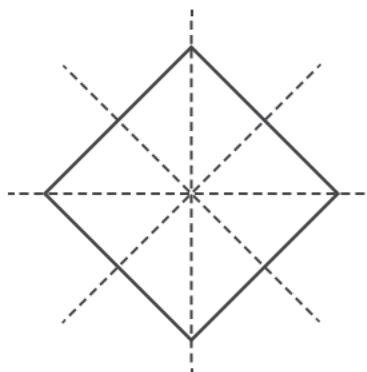What is the measure, in degrees, of angle CBD?

Show your work.

Answer _____ degrees

41 Dotted lines were added to the two figures shown below to represent lines of symmetry.

Figure A   **Figure B**

Which figure shows only correct lines of symmetry?

Explain how you know your answer is correct.

_____

_____

_____

GO ON

42 The population of City A is eighty-four thousand two hundred six. The population of City B is represented by the expression 80,000 + 4,000 + 200 + 10 + 6. Write a number sentence using >, <, or = to compare the populations of City A and City B.

Explain how you know your answer is correct.

_____

_____
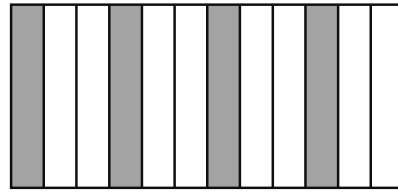
_____

43 The models shown below are the same size and divided into equal parts. The shaded parts in each model represent a fraction of a whole.

Model A   **Model B**

How many more parts in Model B need to be shaded to make the fraction represented by Model B equivalent to the fraction represented by Model A? Be sure to include the new fraction represented by Model B in your answer.

Explain how you know your answer is correct.

_____

_____

_____

GO ON

44 A section of a library has 36 bookshelves. Each bookshelf holds exactly 48 books of similar size. What is the total number of books that all of the bookshelves will hold?

Show your work.

Answer _____ books

45 A student is using wooden blocks to build two towers of different heights.

All of the blocks are the same size and have a height of $\frac{3}{4}$ inch. The short tower

is 5 blocks high and the tall tower is 9 blocks high. What is the difference in height,

in inches, between the short tower and the tall tower?

Show your work.

Answer _____ inches